

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method of transmitting control signals for uplink transmission of packet data, comprising:

transmitting control signal data over a downlink control channel shared by a plurality of users, the downlink control channel including timeslots, each timeslot including fields identifying one of the plurality of users, each field including control signal data for the identified user for controlling uplink transmission of packet data by the identified user, wherein the control signal data in each field includes acknowledgment/negative acknowledgment of a packet transmitted by a user and an indicator related to a transmit rate at which the user is to transmit in the uplink.

2. (Previously Presented) The method of claim 1, further comprising:

assigning each user a particular field in the downlink control channel, in advance of transmitting the downlink control channel.

3. (Original) The method of claim 2, wherein the assigning step includes assigning each user a particular field with a given channelization code during a call setup procedure with the user.

4. (Cancelled)

5. (Previously Presented) The method of claim 1, wherein the control signal data in each field includes a first indicator specifying one of an acknowledgment or a negative acknowledgment of a packet transmitted by a user.

6. (Original) The method of claim 5, wherein the control signal data in each field includes a second indicator related to a maximum transmit rate at which the user is to transmit in the uplink.

7. (Original) The method of claim 6, wherein a user adjusts transmit rate or maintains transmit rate in the uplink based on values of the first indicator and the second indicator.

8. (Previously Presented) The method of claim 1, wherein the number of users supported by the transmitted downlink control channel is based on one or more of a network signal-to-noise ratio value, an effective coding rate for the channel, and bit size of each field.

9. (Previously Presented) The method of claim 6, wherein the number of users supported by the transmitted downlink control channel is based on a bit size of the second indicator in each field.

10. (Original) The method of claim 6, wherein the first and second indicators are 1-bit values.

11. (Original) The method of claim 6, wherein the first and second indicators are N-bit values, N representing a positive integer greater than 1.

12. (Original) The method of claim 6, wherein one of the first indicator and second indicator is an M-bit value and the other of the first indicator and second indicator is an N-bit value, N and M being different positive integers.

13. (Original) The method of claim 1, wherein each field is individually power controlled based on an uplink power control command by the user specified by the field.

14. (Currently Amended) A method for uplink transmission of packet data, comprising:

decoding a field received over a downlink control channel that is shared by a plurality of users, the shared downlink control channel including time slots, each time slot having a plurality of fields, each field including control signal data for an identified one of the plurality of users for controlling uplink transmission, wherein the control signal data in each field includes one of an acknowledgment/negative acknowledgment of a packet previously transmitted by the identified user and an indicator related to a transmit rate at which the identified user is to transmit in the uplink; and

transmitting packet data, from the identified user, in the uplink in accordance with the decoded control signal data.

15. (Previously Presented) The method of claim 14, wherein each user is assigned a particular field in the shared downlink control channel by a network serving the users, in advance of receiving the shared downlink control channel.

16. (Original) The method of claim 15, wherein each user is assigned a particular field with a given channelization code during a call setup procedure with the network.

17. (Previously Presented) The method of claim 14, wherein each user is assigned a particular field in the shared downlink control channel by a base station serving the user, in advance of receiving the shared downlink control channel, the assigned field adapted to be modified by the serving base station.

18. (Cancelled)

19. (Previously Presented) The method of claim 14, wherein the number of users supported by the shared downlink control channel is based on one or more of a network signal-to-noise ratio value, an effective coding rate for the shared downlink control channel, and bit size of each field in the shared downlink control channel.

20. (Previously Presented) The method of claim 14, wherein the control signal data in each field includes a first indicator specifying one of an acknowledgment or a negative acknowledgment to a packet transmitted by the identified user.

21. (Previously Presented) The method of claim 20, wherein the control signal data in each field includes a second indicator related to a maximum transmit rate at which the identified user is to transmit in the uplink.
22. (Previously Presented) The method of claim 21, wherein the identified user adjusts transmit rate or maintains transmit rate for uplink transmission based on values of the first indicator and the second indicator.
23. (Previously Presented) The method of claim 21, wherein the number of users supported by the shared downlink control channel is based on bit size of the second indicator in each field.
24. (Original) The method of claim 14, wherein each field is individually power controlled based on an uplink power control command by the user specified by the field.